



# A Profile of the Agricultural Industry of Cache County, Utah *November 2002*



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the Agricultural Industry  
of  
Cache County, Utah  
*November 2002*

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by  
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American Farmland Trust is a private, nonprofit conservation organization (501.c.3.) dedicated to protecting the nation's strategic agricultural resources. Founded in 1980, AFT works to stop the loss of productive farm and ranch land, and to promote agricultural practices that lead to a healthy environment. [www.farmland.org](http://www.farmland.org).

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## CACHE COUNTY AGRICULTURAL PROFILE

### Summary

- The agriculture sector generates the greatest share of output in Cache County's economy. In 1999 (the latest year with complete data available) that proportion was 26 percent of the county's economy.
- Land available for agricultural production is decreasing as farms are subdivided due to residential growth pressures. 10,630 acres of agricultural land – over 16 square miles – were permanently converted out of agriculture from 1986 through June 2002. 83.5% (8,880 acres) was prime agricultural land or land of statewide importance; 16.5% (1,750 acres) was "other" land.
- County population will continue to increase by 2% per year, doubling the population every 25 years, placing increasing pressure on the remaining agricultural land.
- Agricultural employment in Cache County has remained relatively stable, now comprising 9% of total county employment.
- Employment shifts appear to be: 1) an increase in labor applied to crop production, and 2) increase in dairy processing jobs.
- Although production expenses have declined relative to gross farm income, most farms still have cash receipts under \$10,000, and increasingly supplement their farm income with other sources.
- The food processing industry as a whole provides 80% of wage income (employee compensation) in the county's agricultural sector.
- Value of farm production increased by 17% to \$131.5 million in the 1990s, while the value of food processing output increased by 5% to \$1 billion.
- Agriculture sector multipliers indicate that agriculture generates more in additional output, value-added and employment than other Cache County industries.
- The average age of agricultural land owners is increasing, and the proportion of younger operators is decreasing (mirroring national trends). Thus, in the near future, ownership of a large portion of the county's agricultural land will be transferred, and economic development resources should be invested in the agriculture sector to ensure that young operators enter the industry.

Note: All data in dollars have been adjusted for inflation and are thus presented in 1999 dollars for consistency across data sets. This adjustment is necessary to remove the variation that is due solely to inflation, leaving us with a more accurate picture of real growth, if any, and the true changes in monetary values from one year to the next. All income and expenditure data were adjusted using the western region Consumer Price Index; all output data in dollars were adjusted using the Producer Price Index.

## Summary Of Cache County's Importance To Utah's Agricultural Economy

### Cache County's Importance in Utah's Agricultural Economy, 2000

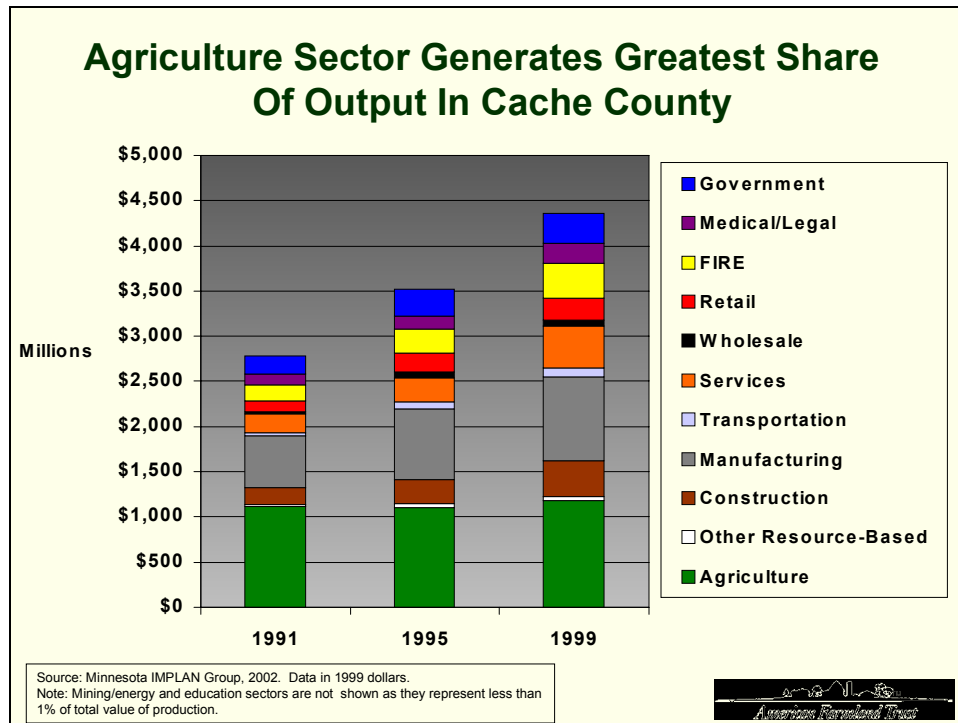
| <u>Commodity</u> | <u>State<br/>Ranking by<br/>Production</u> | <u>Estimated<br/>Value of<br/>Production</u> |
|------------------|--|--|
| Barley           | 1  | \$ 2,678,800                                 |
| Milk             | 1  | \$48,220,312                                 |
| All Cattle       | 2  | \$46,200,000                                 |
| Corn             | 2  | \$3,604,500                                  |
| Wheat            | 2  | \$2,575,350                                  |
| Mink Pelts       | 3  | \$2,550,000                                  |
| Oats             | 3  | \$57,600                                     |
| Alfalfa          | 4  | \$15,872,700                                 |
| All Hay          | 4  | \$17,166,250                                 |

Source: Utah Agricultural Statistics Service, 2001.

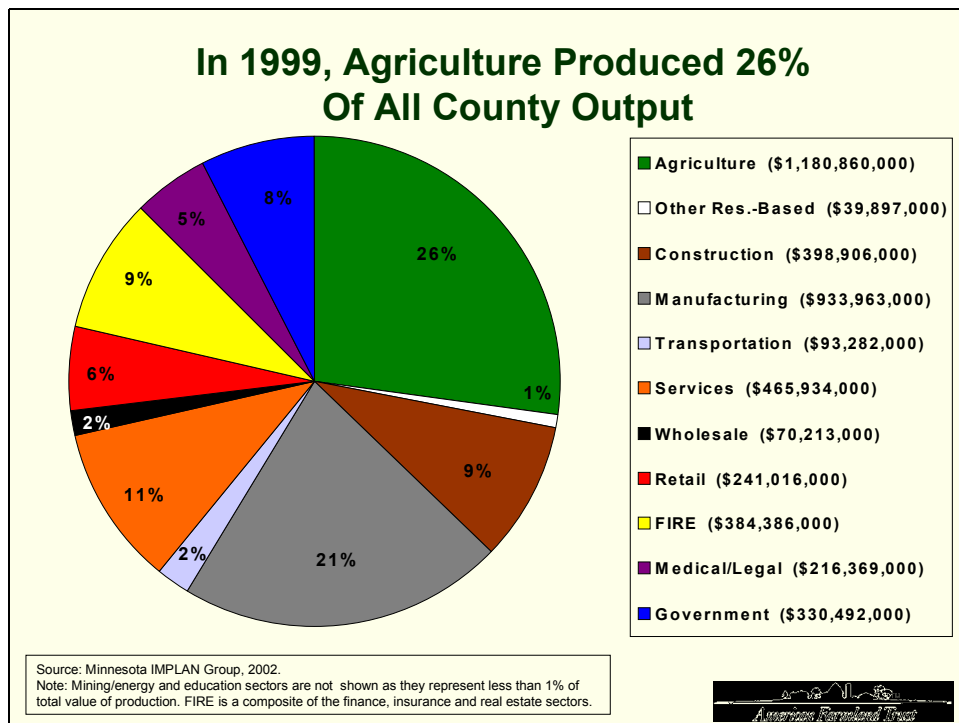


Although Cache County ranks very high in the production of several commodities, livestock and dairy products bring in the greatest revenue.

## Production And Value-Added Trends In Agriculture

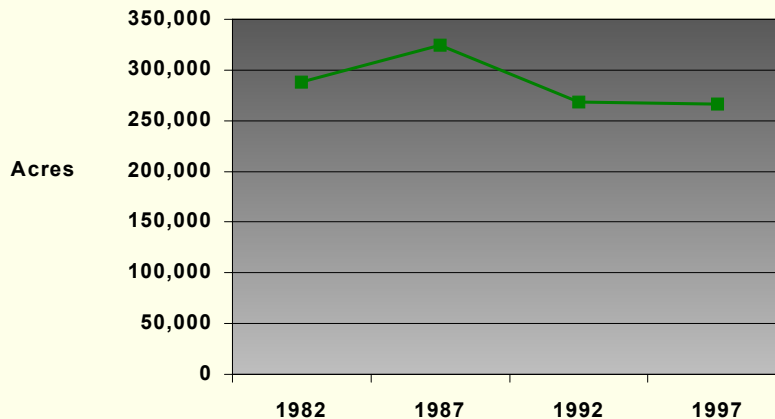


In 1999, agriculture produced 26% of all county output (manufacturing was the next most important sector generating 21% of all output). In 1991, agriculture produced 40% of all output. From 1991 to 1999, the greatest growth occurred in the transportation, services and wholesale sectors.



## Changes In The County's Land Base And Farm Structure

### Land In Farms Has Decreased By 8% Since 1982

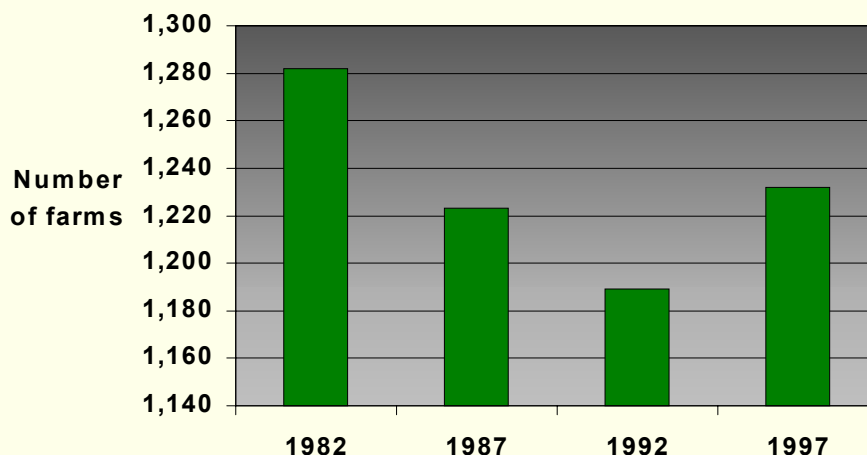


Source: United States Census of Agriculture, 1982, 1987, 1992, 1997.

In Cache County, the greatest decrease in land in farms occurred from 1987 to 1992 where 56,000 fewer acres were recorded in agriculture (a decrease of 18%). As of 1997, the U.S. Census of Agriculture shows 22,000 acres fewer than in 1982. 36% of Cache County's land base is in farms.

Recent data from Cache County show that 10,630 acres of agricultural land were permanently converted out of agriculture from 1986 through June 2002. Of this, 83.5% or 8,880 acres, was prime agricultural land or land of statewide importance.

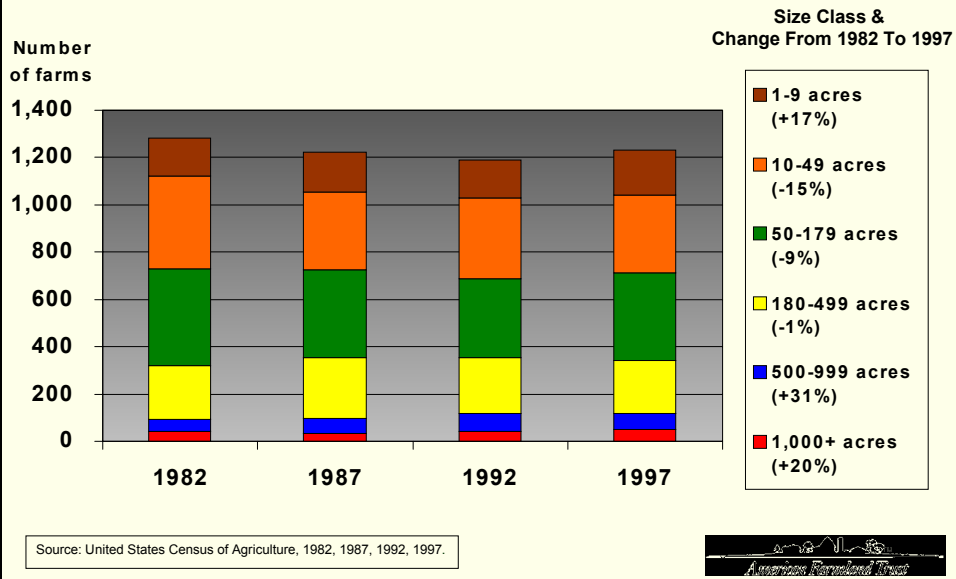
### Number of Cache County Farms Decreased By 4% Since 1982



Source: United States Census of Agriculture, 1982, 1987, 1992, 1997.

The number of farms in Cache County has decreased by 4% (from 1,282 to 1,232) since 1982. Dairy farms have decreased from 406 in 1982 to 231 in 1997. Average farm size in Cache County is 215 acres.

## Very Small Acreage Farms And Those Over 500 Acres Increased In Number Since 1982

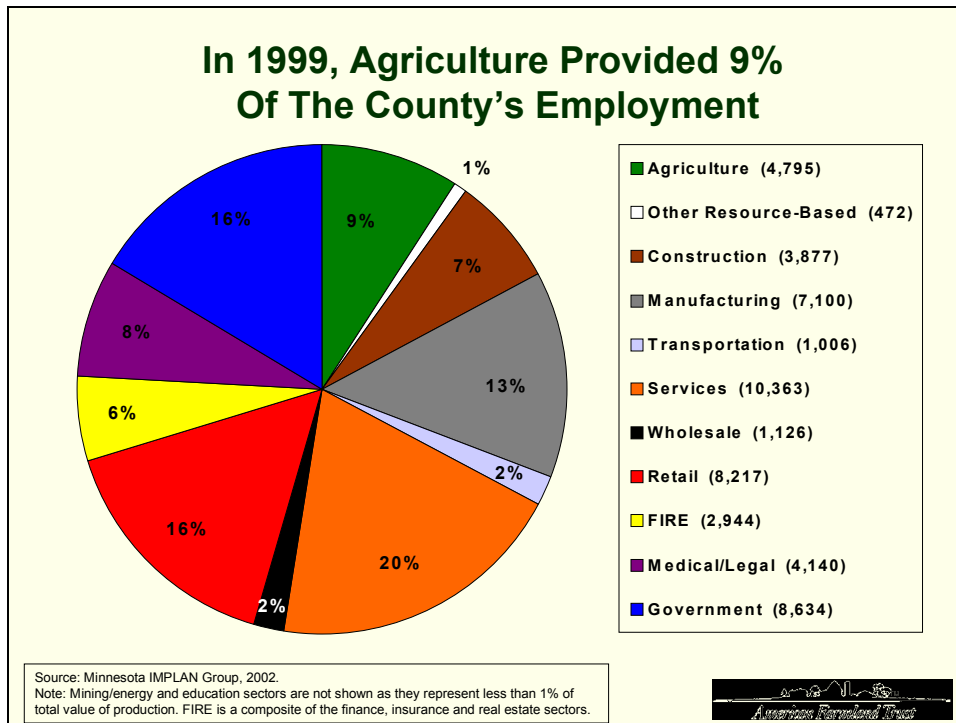


Size of farms has been relatively constant in Cache County, noting the following trends:

- Farms of 1-9 acres have increased by 17% since 1982
- Farms of 10-49 acres have decreased by 15% since 1982 and
- Farms over 500 acres have increased by 26% since 1982, suggesting consolidation of smaller farms, particularly in the dairy industry.



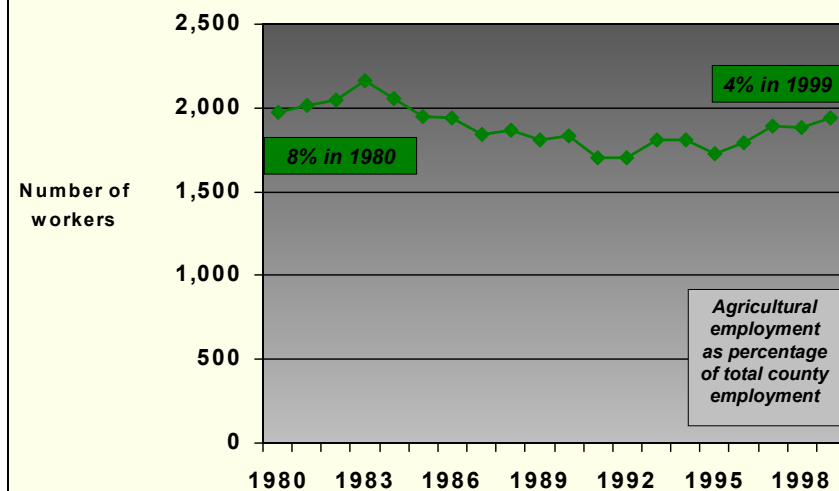
## Agricultural Employment Trends



Agricultural employment includes all on-farm, processing and services sector jobs directly related to agricultural production.

Resource-based industries include agricultural, forestry, fishery, landscape and horticultural services and products, food processing, forestry products and other associated industries.

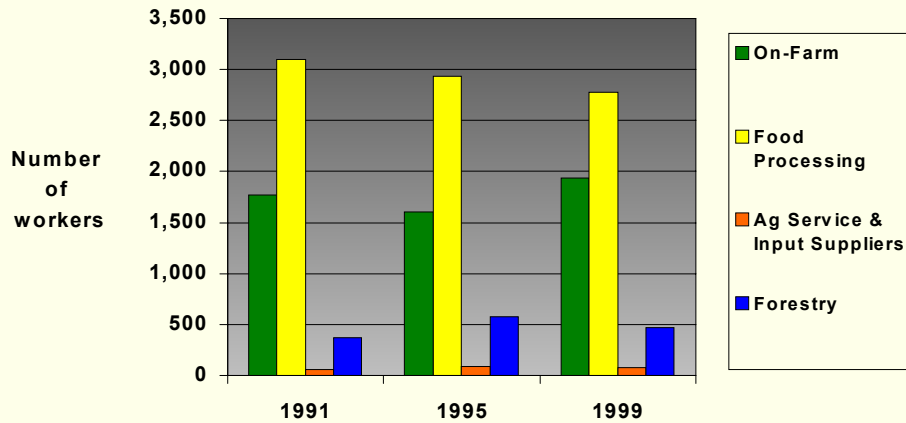
## On-Farm Employment Relatively Stable But Declining As Percentage Of Total County Employment



Source: Bureau of Economic Analysis REIS data, 1980-1999.

Total on-farm employment has varied between 1,972 in 1980, to a high of 2,165 in 1983, to 1,940 in 1999. For the period 1991 to 1999, these data show a 6% increase in on-farm employment, compared to the IMPLAN data that follow and show a 10% increase. In 1980 on-farm employment in the ag sector was 8% of the workforce in Cache County but had fallen to 4% in 1999.

## Total On-Farm Employment Increased By 10%, Jobs In Food Processing Decreased By 10% Since 1991

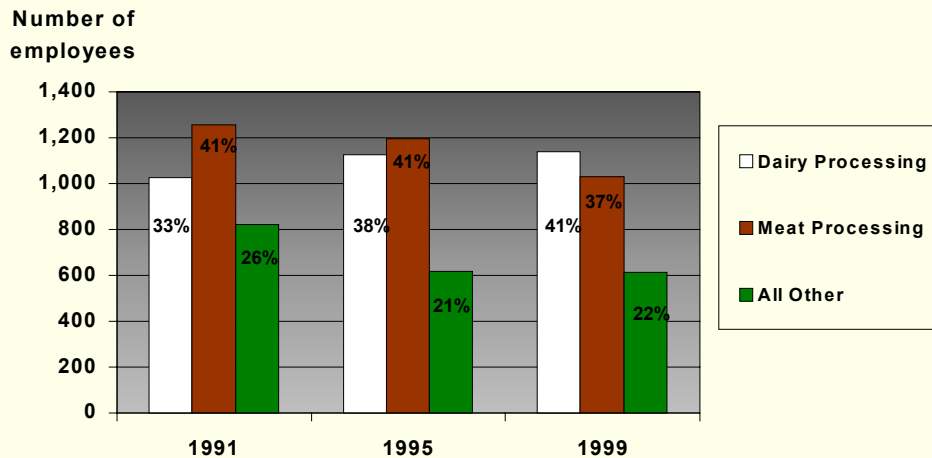


Source: Minnesota IMPLAN Group, 2002.



This graph shows the entire resource-based component of Cache County's economy, including worker and owner-operator employment.

## Employment in Dairy Processing Increased By 11%, While Meat And Other Processing Jobs Declined



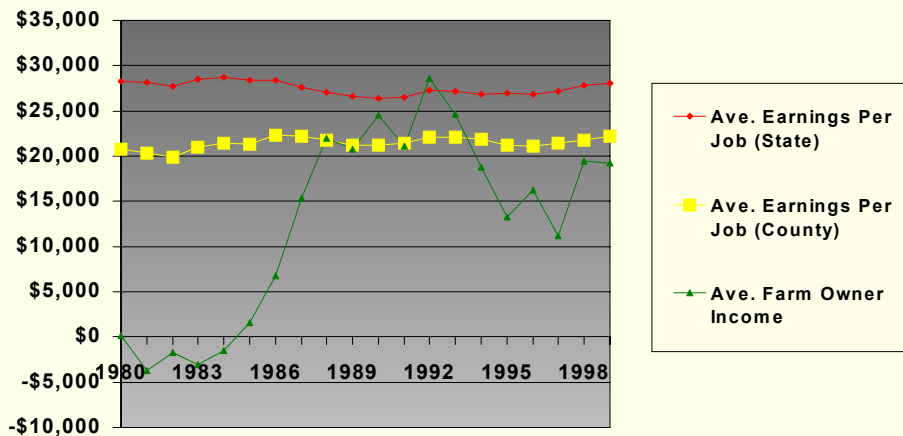
Source: Minnesota IMPLAN Group, 2002.



Dairy processing jobs increased by 11% from 1991 to 1999 (primarily in cheese production). Meat processing jobs decreased by 18% and other food processing jobs decreased by 25%.

## Farm Income, Expenditure And Net Returns

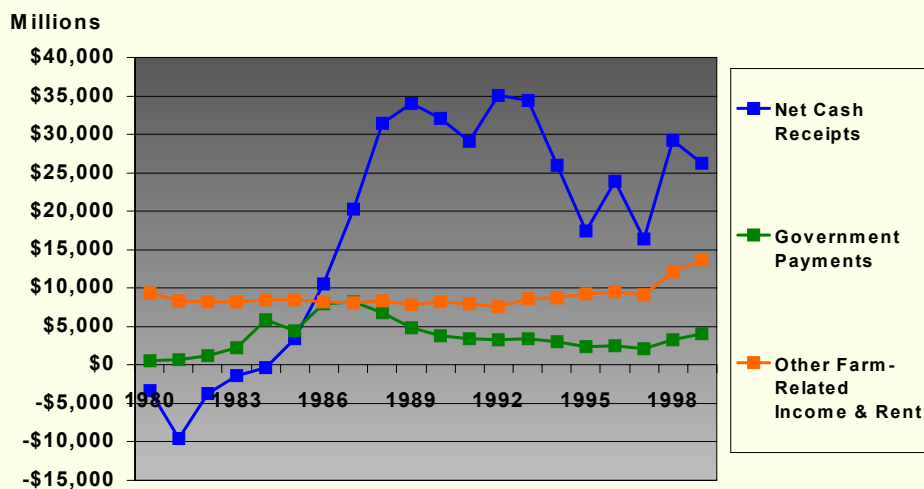
### Average Farm Income Generally Lower And More Variable Than Average County Wages



Source: Bureau of Economic Analysis REIS data, 1980-1999. Data in 1999 dollars.

Real state and county level average earnings per job have remained relatively constant over the last two decades. However, average farm income has varied from negative returns in the early 1980s, to a high of \$28,600 in 1992.

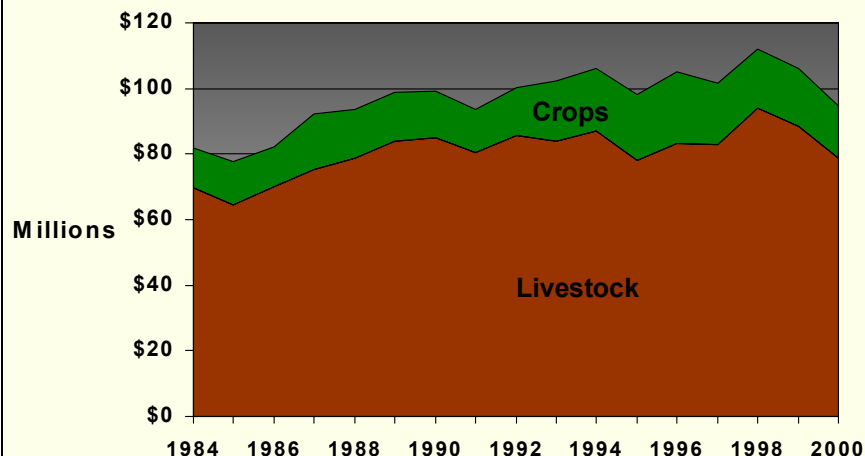
### Net Cash Receipts Most Variable Source Of Income For County Farmers



Source: Bureau of Economic Analysis REIS data, 1980-1999. Data in 1999 dollars.

Net cash receipts equal cash receipts from marketing of crops and livestock minus production expenses. Production expenses consist of: purchases of feed, livestock, seed, fertilizer and lime, and petroleum products; hired farm labor expenses (including contract labor); and all other production expenses (e.g. depreciation, interest, rent and taxes, and repair and operation of machinery).

## Livestock Production Generates 83% Of All Cash Receipts In Cache County

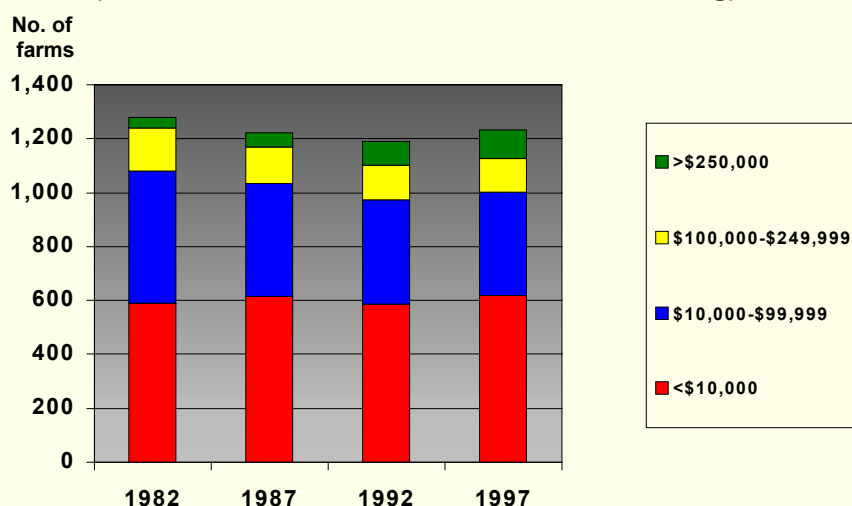


Source: Utah Agricultural Statistics Service Reports, 1987-2001.  
Note: Data for 2000 are preliminary. No county-level data available prior to 1984. Data in 1999 dollars.



Livestock provided 83% of all cash receipts from agricultural production in 2000 in Cache County. Cache County ag. producers collected 11% of all cash receipts from livestock production in the state, and 7% of the state's cash receipts from crop production. Real cash receipts from livestock production vary between \$64 and \$94 million annually in Cache County.

## Most Farms Have Sales Under \$10,000 (But Those With Sales Over \$250,000 Are Growing)



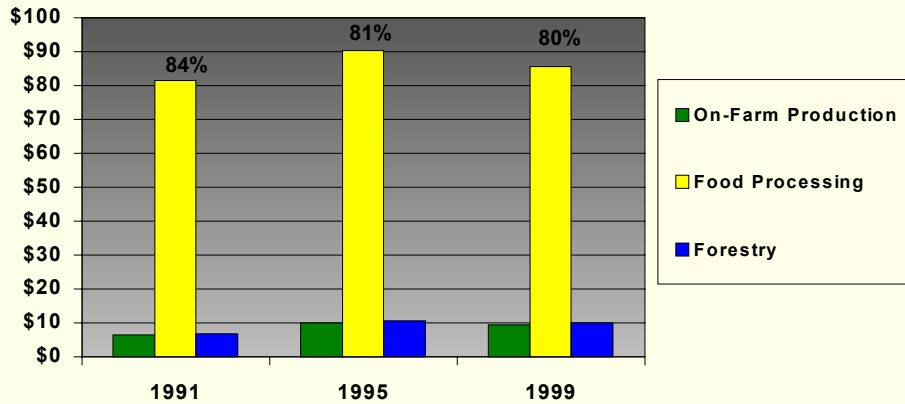
Source: United States Census of Agriculture, 1982, 1987, 1992, 1997.



Small and mid-size farms make up the majority of operations (in 1997, 72% of all farms were less than 180 acres), and 50% of all farms generated sales of less than \$10,000 annually. However, a large proportion of farm sales come from operations with over \$250,000 in annual receipts. These farms (9% of the total number) generated 67% of all cash receipts from agriculture in 1997.

## Most Wage Income Is Generated In Food Processing Industries

Millions



Source: Minnesota IMPLAN Group, 2002.

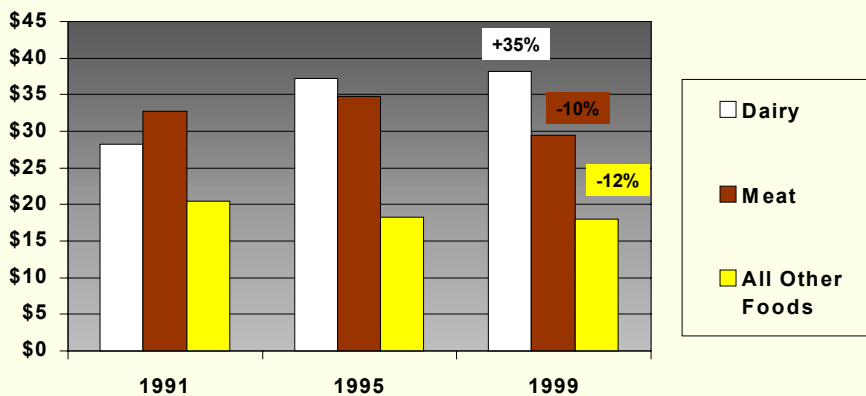
Note: Agricultural service and input suppliers are excluded from the chart since they contribute only 1% to all value-added in 1991 and 1999. Data in 1999 dollars.



The largest wage generating sector is food processing, while most self-employment income comes from farm production.

## Total Wages Paid By Dairy Processing Businesses Increased By 35% From 1991 To 1999

Millions

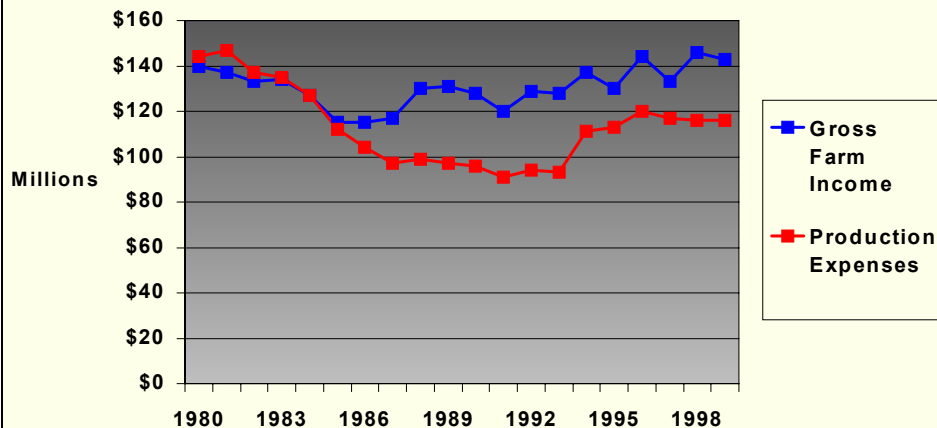


Source: Minnesota IMPLAN Group, 2002. Data in 1999 dollars.



Real wages paid in the dairy industry have increased by 35% in the last decade, while total wages paid have decreased in the meat and other processing industries. Other food and feed processing industries include canning, flour milling, feed preparation, and baked goods. The dairy sector is a major source of economic activity in the county (see multipliers).

## Production Expenses Have Declined Relative To Gross Farm Income Since 1980

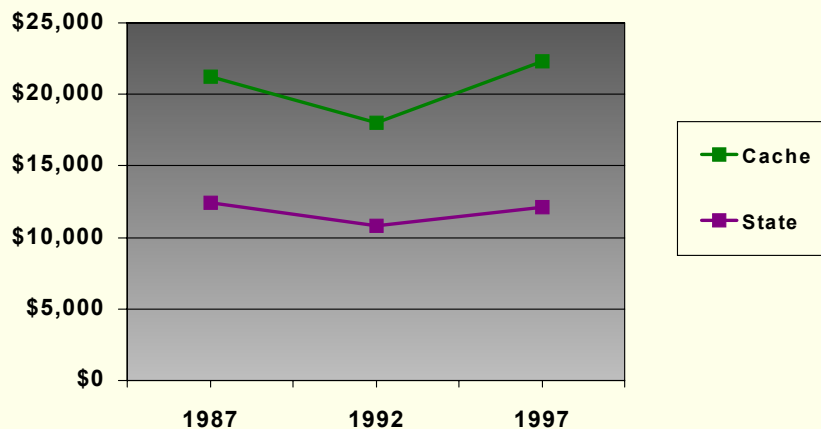


Source: Bureau of Economic Analysis REIS data, 1980-1999. Data in 1999 dollars.



Total production expenses were 82% of income as of 1999, and 80% in 1998. Expenses have increased steadily since 1993, by a total of 25%.

## Net Cash Return Per Farm Higher In Cache County



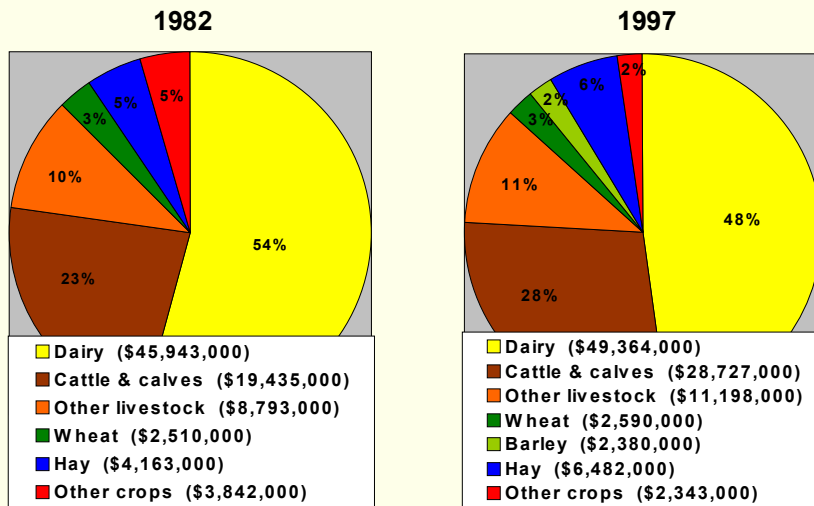
Source: United States Census of Agriculture, 1987, 1992, 1997.

Note: Total production expenses data unavailable for 1982, therefore net cash return for that year cannot be calculated.



U.S. Census of Agriculture data show that real Cache County net cash returns per farm are consistently higher than the state average. In fact, Cache County ranks sixth highest of the 29 counties in cash returns for 1997, following Iron, Beaver, Sevier, Millard and Rich.

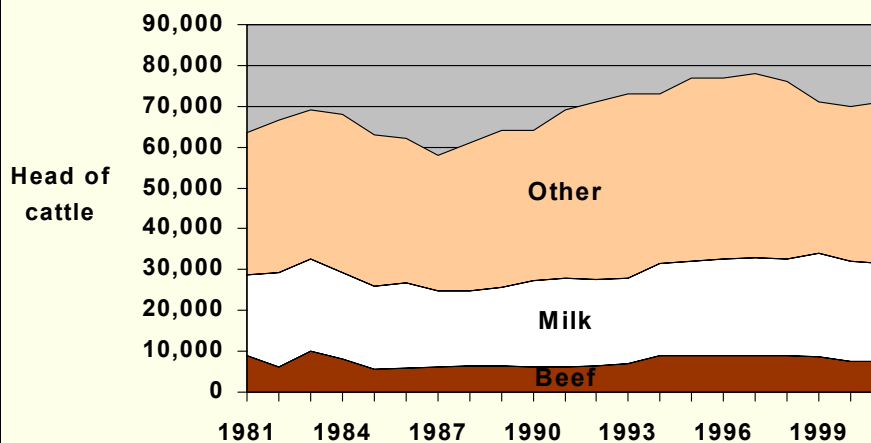
## Although Dairy Is Dominant, Production Of Cattle & Other Livestock Has Grown In Cache County



Source: United States Census of Agriculture, 1982, 1997. Data in 1999 dollars.



## Beef and Milk Cow Inventories Have Remained Relatively Stable



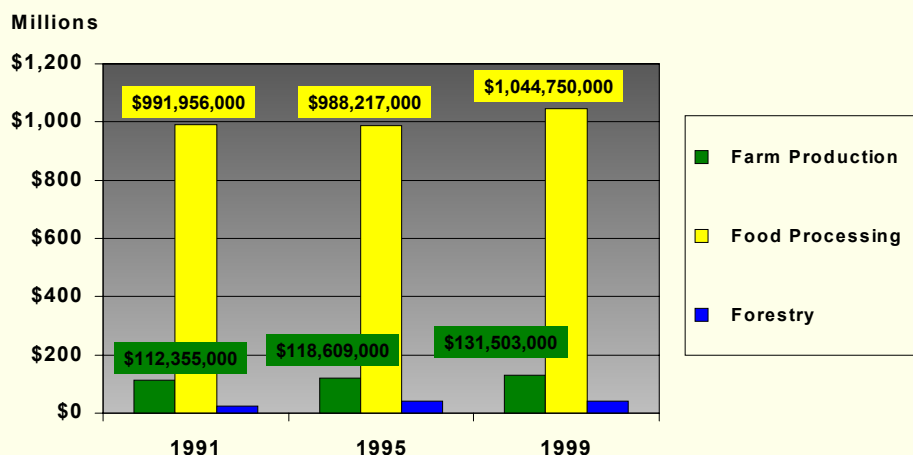
Source: USDA National Agricultural Statistics data base, except 1982 data from US Census of Agriculture.



Beef cattle are 11% of total herd inventories, dairy are 34%, and other cattle (young stock) are 56%. Current inventories are at 71,000 head, from a high of 78,000 in 1997. In 2001, Cache County had 2% of the state's total beef cattle inventories, 25% of its milk cow inventories, and 9% of its inventories of young stock.

A 2001 Utah State University study of dairy farms confirms that, although there has been consolidation of farms, the remaining farms have expanded their herds, thus maintaining approximately the same total inventory over time. Herd size has increased by 22% from 1995 to 2000 to an average of 145 head. According to this survey, 97% of Cache County's dairy farms are still family owned businesses.

## Total Value Of Production Increased In Farm & Food Processing Sectors Over Decade



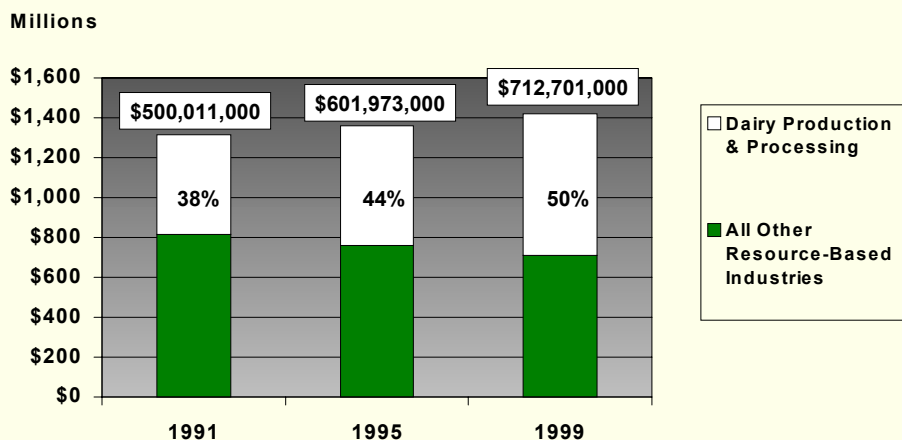
Source: Minnesota IMPLAN Group, 2002.  
Note: Agricultural service and input suppliers are excluded from the chart since they contribute less than 1 percent to the total value of resource-based production. Data in 1999 dollars.



Total direct output or total value of production includes commodities used in the farm production process, but not sold in the open market. This is true primarily for the feed grain and hay sectors. Output estimates for these sectors will almost always exceed published cash receipts data. Output is equal to shipments plus net additions to inventory.

The real value of production of farm products increased by 17% to \$131.5 M from 1991 to 1999 and, for the same period, food processing output value increased by 5% to \$1 billion.

## Dairy Sector Is Increasingly Important Source Of Output & Value-Added



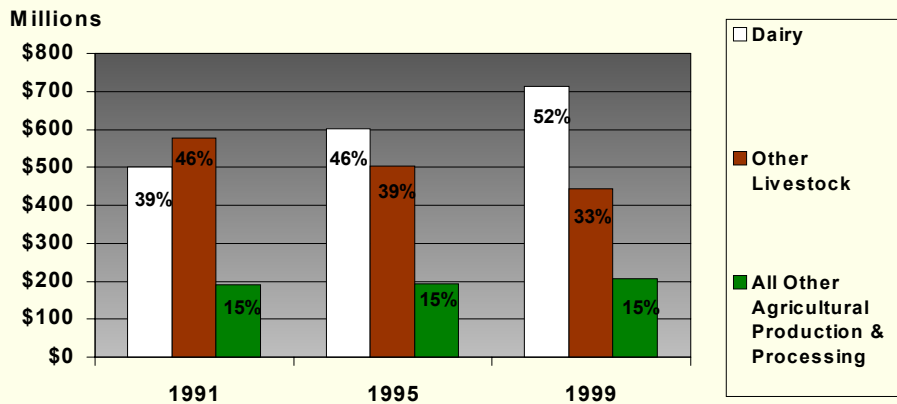
Source: Minnesota IMPLAN Group, 2002. Data in 1999 dollars.



Value-added is the additional value that agricultural production generates in the form of farm income and wages, other income derived from rents, interest, etc., and industry taxes paid.



## Dairy Increases, But Livestock Production & Processing Decrease In Output & Value-Added

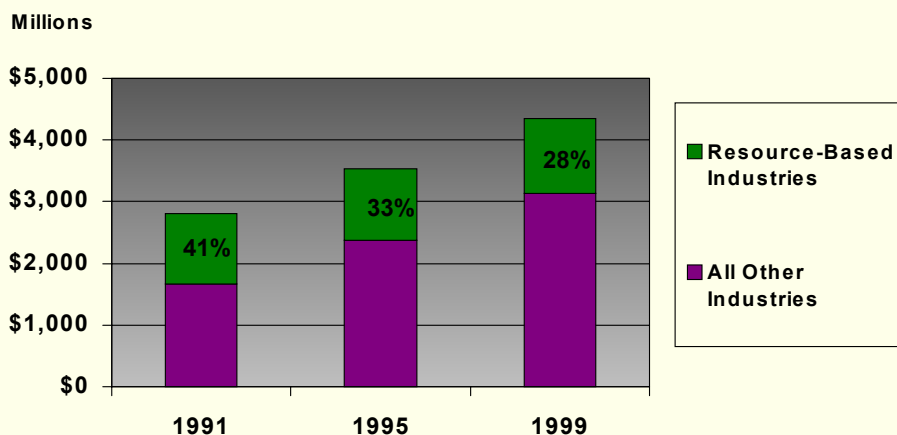


Source: Minnesota IMPLAN Group, 2002. Data in 1999 dollars.



The food processing industry in Cache County generated over \$151 M in value-added in 1999, in addition to over \$1 billion in direct output (total value of approx. \$1.2 billion). This comprised 76% of the value-added generated by resource-based industries in 1999. Farm production generated \$33 M in value-added in 1999, in addition to \$131 M in direct output (total of \$164 M).

## Value Of Resource-Based Production Decreases As Percentage Of Total County Economy



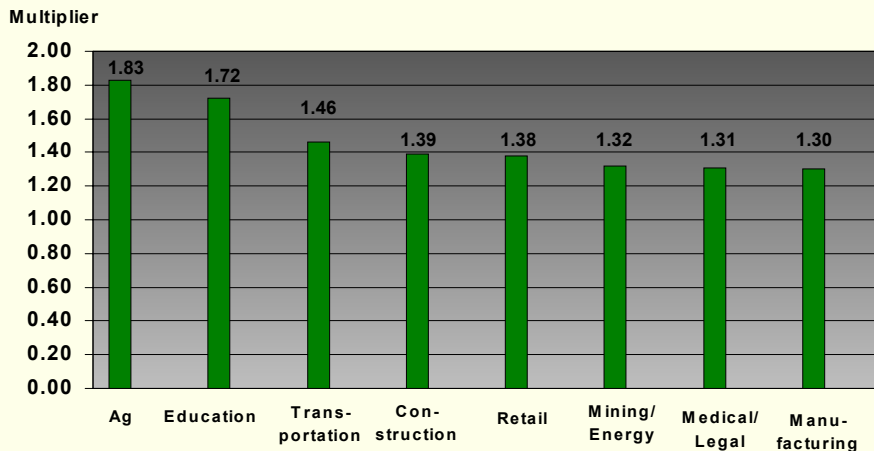
Source: Minnesota IMPLAN Group, 2002. Data in 1999 dollars.



Resource-based industry production increased slightly from \$1.1 billion in 1991 to \$1.2 billion in 1999 (in real terms), but its share of total county value of production decreased from 41% in 1991 to 28% in 1999.

## Multipliers: The Impact Of Agriculture On Cache County's Economy

### Agriculture Has The Highest "Type-I Output Multiplier" Of Any Industry Sector In The Cache County Economy



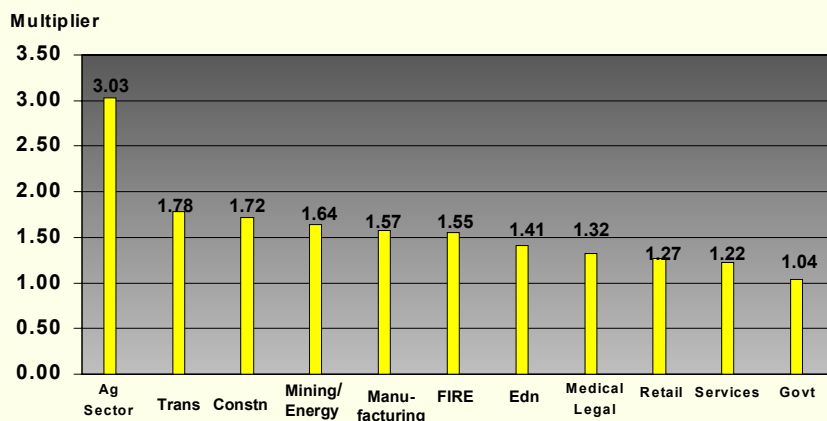
Source: Minnesota IMPLAN Group, 2002.  
Note: These are Type I multipliers, based on 1999 data. Sector-level data courtesy of Don Snyder, USU.



Agriculture has the highest type I output multiplier of all industries in the county. This means that for every 1 million dollars of output from agriculture, an additional \$830,000 is transferred to other industries for the purchase of goods and services, adding to the local economy (generated in interindustry transfers).

Type I multipliers generated from the IMPLAN model are most conservative in estimating the impact of the ag. sector on the rest of the economy. An industry with a large multiplier is one, therefore, with strong linkages to other parts of the local economy.

### Employment Multiplier: One Job In Agriculture Sector Generates Two Additional County Jobs

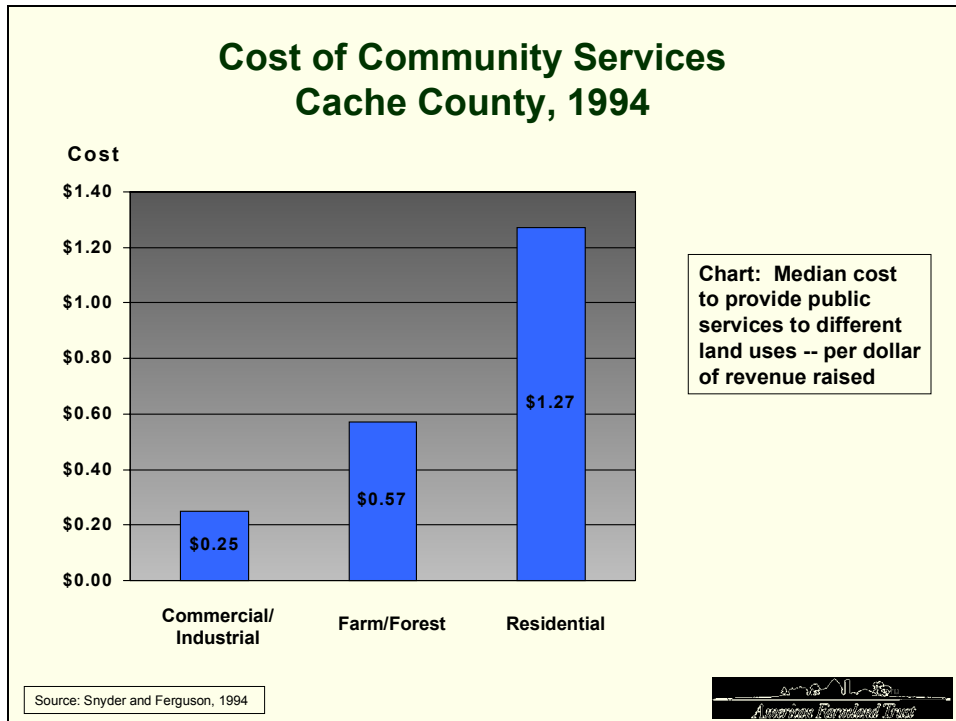


Source: Minnesota IMPLAN Group, 2002.  
Note: These are Type I multipliers, based on 1999 data. Sector-level data courtesy of Don Snyder, USU.



Employment multipliers show the impact of agriculture in terms of job creation. The chart shows that for every job in agriculture, another two jobs are created. This is, by far, the highest industry employment multiplier of all Cache County industries.

## Agriculture's Fiscal Contribution In Cache County

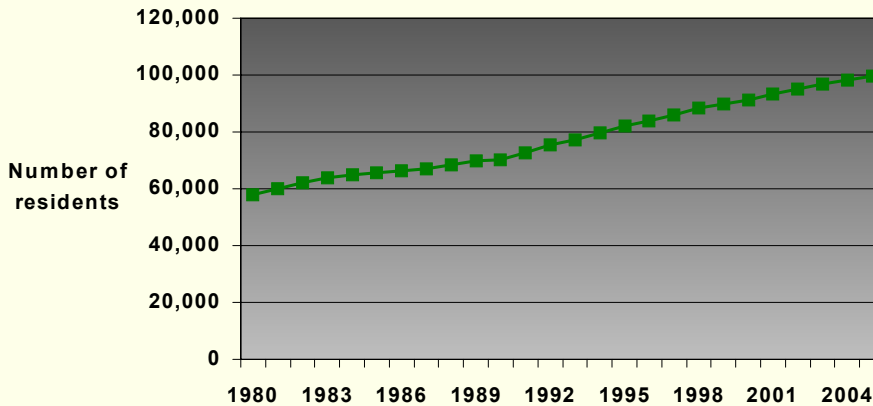


Agricultural areas require only \$0.57 worth of services for every dollar they contribute in taxes, and commercial/industrial areas require \$0.25. Conversely, residential developments demand \$1.27 in services for every tax dollar they generate.

Agricultural lands and open space generate a net positive impact on the county budget. Residential developments – especially scattered, low-density developments – inflict a net loss on the county budget.

## Impact Of Population Growth And Changing Demographics On Agriculture In Cache County

### County's Population Grew 62% From 1980 To 2001, Projected Annual Growth Is 2%



Source: Utah Governor's Office of Planning and Budget,  
Utah Population Estimates Committee, 2002.

Cache County's population increased by 30.5% from 1990 to 2000, to over 91,000 residents. Current and projected growth rates are approximately 2% annually (Census data from 1950 to 2000 have consistently shown an average of 2% growth.) At 2 percent annual growth, the county is doubling its population every 25 years.

Other forces of change influencing the future of Cache County agriculture include the aging of the farm population:

- Average age of Cache County farmers was 54.2 years in 1997, versus 51.5 years in 1982.
- 26% of Cache County operators were 65 years or older in 1997, versus 20% in 1982.
- Only 7% are under 35 years old, versus 13% in 1982.
- 62% of all operators worked at least some days off the farm in 1997.
- Of those operators who worked off-farm, 71.5% worked *200 or more days* off the farm in 1997, versus 41% in 1982.
- The average age of agricultural land owners is increasing, and the proportion of younger operators is decreasing (mirroring national trends). Thus, in the near future, ownership of a large portion of the county's agricultural land will be transferred, and economic development resources should be invested in the agriculture sector to ensure that young operators enter the industry.

## DESCRIPTION OF DATA SOURCES

**Utah Agricultural Statistics Service:** A State Statistical Office of the National Agricultural Statistic Service, the Utah Agricultural Statistics Service (UASS) is responsible for making timely and accurate crop, livestock and price estimates for Utah under the direction of NASS as mandated by the USDA. UASS conducts numerous surveys during the year with Utah farmers, ranchers and agribusinesses. The Salt Lake City staff summarize and analyze the data and then recommend crop production, livestock inventory, price, and other agriculture estimates to NASS headquarters. The headquarter's staff review the state recommendations and issue state and national estimates to the public on scheduled dates throughout the year. In addition to state level estimates, county estimates are available for some commodities. Historic data dating to 1867 are available for some commodities.

Data available at:

Utah Agricultural Statistics Service

176 N 2200 West Suite 260

Salt Lake City, Utah 84116

801-524-5003 (phone)

800-747-8522 (toll-free phone)

801-524-3090 (fax)

nass-ut@nass.usda.gov (email)

[http://www.nass.usda.gov/ut/ut\\_abpage02.htm](http://www.nass.usda.gov/ut/ut_abpage02.htm) (Web site)

**U.S. Census of Agriculture:** The Census of Agriculture is the most comprehensive source of data on U.S. agriculture and the only source of uniform data on agricultural production and operator characteristics for each county, state, and the United States. It is a measurement of where farmers and ranchers stand, their production costs and cropping systems, their farm supply needs, and how trends are changing. Congress requires USDA's National Agricultural Statistics Service to conduct the Census of Agriculture every five years. The 2002 Census of Agriculture will be the nation's 26th census. Results from the 2002 census will be available in the latter part of 2003.

Data available at: <http://www.nass.usda.gov/census/>

**IMPLAN:** IMPLAN is a PC-based economic analysis system that can be used for county, state or regional analyses. Data files include information for 528 different industries (generally 3 or 4 digit SIC code breakdown), and 21 different economic variables. Along with the data files are national input-output structural matrices. Data files are available for individual state, county and custom zip code level. Data are available from 1991 to 2000 (2000 year data became available on November 25, 2002). The IMPLAN data also contain social accounting matrix (SAM) data that are used to generate multipliers.

Data available at:

Minnesota IMPLAN Group, Inc.  
1725 Tower Drive West  
Suite 140  
Stillwater, MN 55082  
651-439-4421 (phone)  
651-439-4813 (fax)  
[www.implan.com](http://www.implan.com) (Web site)

**Bureau of Economic Analysis, Regional Economic Information System:** The Bureau of Economic Analysis (BEA) prepares regional economic accounts for the United States. These accounts provide estimates of state and local area personal income and of gross state product. In addition, BEA also prepares estimates of regional economic multipliers. BEA prepares the only detailed, broadly inclusive economic time series for local areas (counties, metropolitan areas, and BEA economic areas) that is available annually. Estimates of total and per capita personal income, beginning with 1969, are for each of the 3,110 counties and county equivalents, the 335 metropolitan areas, and the 172 BEA economic areas in the United States and are released 17 months after the end of the year. Detailed annual estimates of earnings and employment by industry, transfer payments by major program, and farm gross income and expenses by major category are available.

Data available at:

[www.bea.gov/bea/regional/reis/](http://www.bea.gov/bea/regional/reis/) (Web site)  
202-606-5360 (phone)  
[reis.remd@bea.gov](mailto:reis.remd@bea.gov) (email)

**USDA National Agricultural Statistics, historical database:** NASS publishes U.S. and state level agricultural statistics in numerous national reports for many commodities and data series. While the Agricultural Statistics Data Base provides access to significant U.S. and state information and the ability to query by commodity, state(s) and year(s). The county level data are prepared and published by the NASS State Statistical Office for that state. The county data include totals for the Agricultural Statistics Districts (county groupings) and the state. Historical data include crop and livestock production by county and state (some data now available back to 1970), state commodity rankings, and access to special publications on agricultural land values, farms and land in farms, prices received and paid indexes, and more.

Data available at: <http://www.usda.gov/nass/pubs/histdata.htm>

**Cost of Community Services in Cache, Sevier and Utah Counties, 1994:** A study conducted by Donald L. Snyder and Gary Ferguson of Utah State University that analyzes revenues and expenditures for cities and towns in Cache County and allocates them to residential, commercial, and agricultural exposures. A cost of community services (COCS) study is a method of evaluating the relative contributions to the tax base of three different land-use types (typically classified as residential, industrial/commercial, and agriculture/open space). The study then analyzes the demands placed on public services by each of these land use designations. It provides a snapshot of how the property tax burden is distributed in the community, based on one year's budgetary information comparing annual revenues to public sector expenses.

Data available at: <http://ag.utah.gov/pressrel/ccs.html>

**Utah Governor's Office of Planning and Budget, Utah Population Estimates Committee:** The Population Estimates Committee prepares projections on population growth (and other data) from the year 2000 to 2030 for counties, multi-county districts, cities and unincorporated areas. These projections provide detailed demographic and economic information that upon which long-term capital and social service program decisions are made by Utah state government.

Data available at:

Governor's Office of Planning and Budget

Demographic and Economic Analysis

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<http://governor.state.ut.us/projections/default.html> (Web site)